

Appl. No. 10/628,892
Examiner: Tran, Chuc, Art Unit 2821
In response to the Office Action dated October 5, 2004

Date: January 5, 2005
Attorney Docket No. 10112541

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (currently amended): A complex antenna apparatus, comprising:

 a base having a central through hole and a ground;
 a circular polarization antenna disposed on the base and having a hollow feeding portion corresponding to the central through hole; and
 a capacitance (inductance) cylinder loading monopole antenna disposed in the central through hole of the base via the hollow feeding portion of the circular polarization antenna and comprising a monopole linear antenna and a conductive element covering the monopole linear antenna, wherein the conductive element is separated from the ground of the base.

Claim 2 (canceled)

Claim 3 (currently amended): The complex antenna apparatus as claimed in claim-2 claim 1, wherein the capacitance (inductance) cylinder loading monopole antenna further comprises a dielectric disposed between the conductive element and monopole linear antenna.

Claim 4 (canceled)

Claim 5 (original): The complex antenna apparatus as claimed in claim 1, wherein the circular polarization antenna is circular.

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Claim 6 (original): The complex antenna apparatus as claimed in claim 1, wherein the circular polarization antenna is rectangular.

Claim 7 (original): The complex antenna apparatus as claimed in claim 1, further comprising an RF module connected to the circular polarization antenna and capacitance (inductance) cylinder loading monopole antenna.

Claim 8 (original): The complex antenna apparatus as claimed in claim 7, wherein the base further comprises a through hole, the circular polarization antenna and capacitance (inductance) cylinder loading monopole antenna connected to the RF module via the through hole and central through hole of the base, respectively.

Claim 9 (original): The complex antenna apparatus as claimed in claim 7, further comprising a demodulator connected to the RF module.

Claim 10 (original): The complex antenna apparatus as claimed in claim 1, wherein the base is ceramic.

Claim 11 (original): The complex antenna apparatus as claimed in claim 3, wherein the dielectric is Teflon.

Claim 12 - 24 (canceled)

Claim 25 (new): A complex antenna apparatus, comprising:

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a base having a central through hole;
a circular polarization antenna disposed on the base and having a hollow feeding portion corresponding to the central through hole;
a linear antenna disposed in the central through hole of the base via the hollow feeding portion of the circular polarization antenna;
an RF module connected to the circular polarization antenna and linear antenna; and
a demodulator connected to the RF module.

Claim 26 (new): A complex antenna apparatus, comprising:

a base having a central through hole;
a circular polarization antenna disposed on the base and having a hollow feeding portion corresponding to the central through hole; and
a linear antenna disposed in the central through hole of the base via the hollow feeding portion of the circular polarization antenna and comprising a monopole linear antenna, a conductive element and a Teflon dielectric, wherein the conductive element covers the monopole linear antenna, and the Teflon dielectric is disposed between the conductive element and the monopole linear antenna.

Claim 27 (new): A complex antenna apparatus, comprising:

a base having a central through hole;
a circular polarization antenna disposed on the base and having a hollow feeding portion corresponding to the central through hole;
a capacitance (inductance) cylinder loading monopole antenna disposed in the central through hole of the base via the hollow feeding portion of the circular polarization antenna;

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an RF module connected to the circular polarization antenna and capacitance (inductance) cylinder loading monopole antenna; and
a demodulator connected to the RF module.

Claim 28 (new): A complex antenna apparatus, comprising:

a base having a central through hole;
a circular polarization antenna disposed on the base and having a hollow feeding portion corresponding to the central through hole; and
a capacitance (inductance) cylinder loading monopole antenna disposed in the central through hole of the base via the hollow feeding portion of the circular polarization antenna and comprising a monopole linear antenna, a conductive element and a Teflon dielectric, wherein the conductive element covers the monopole linear antenna, and the Teflon dielectric is disposed between the conductive element and the monopole linear antenna.